STATE OF MARYLAND

DHMH

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March 16, 2012

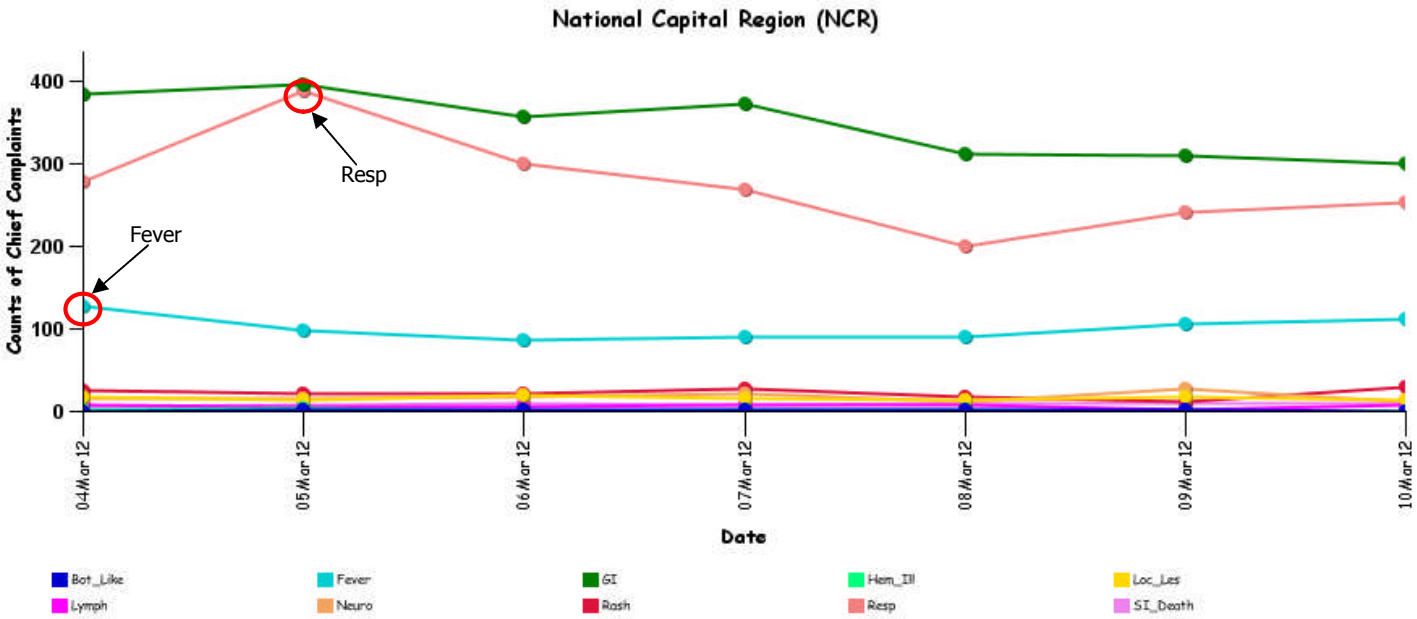
Public Health & Emergency Preparedness Bulletin: # 2012:10
Reporting for the week ending 03/10/12 (MMWR Week #10)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

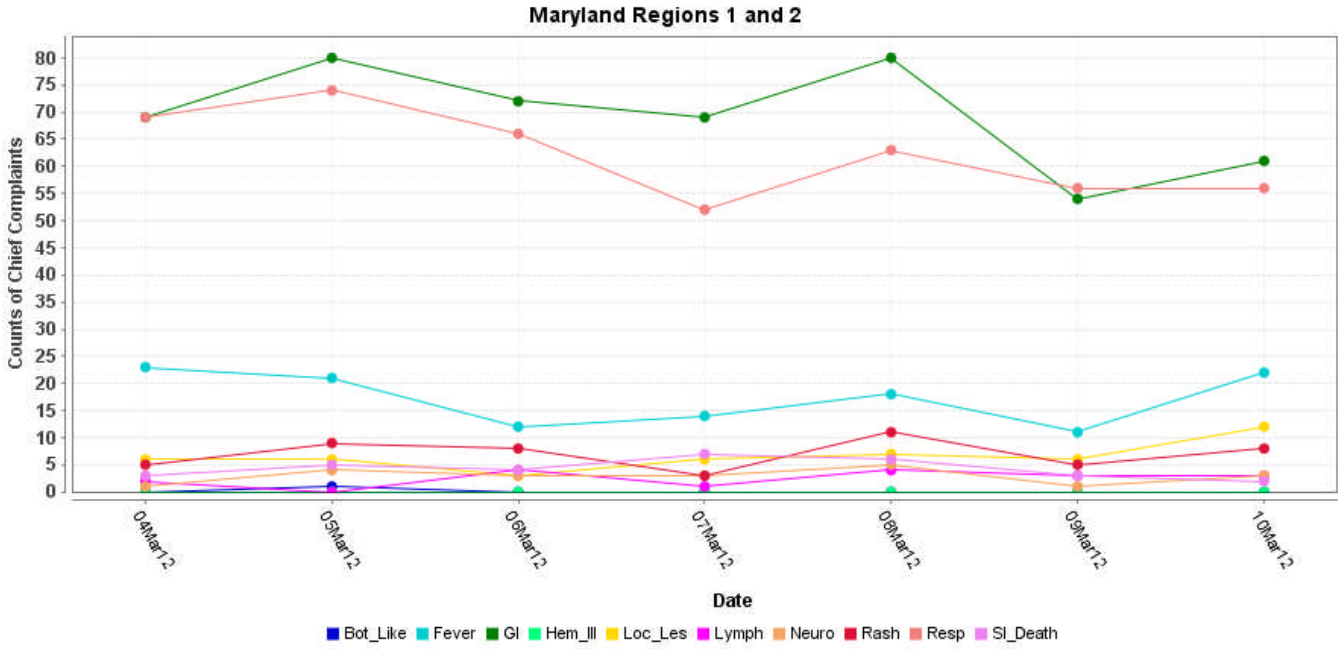
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

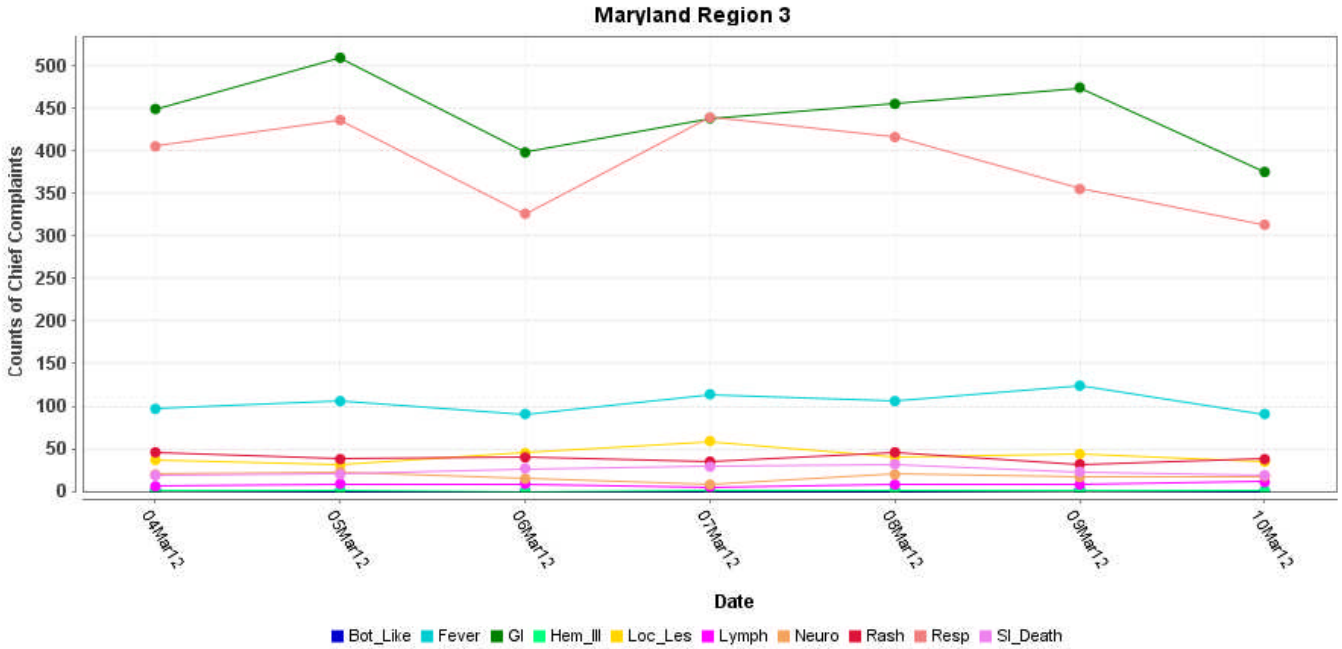


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

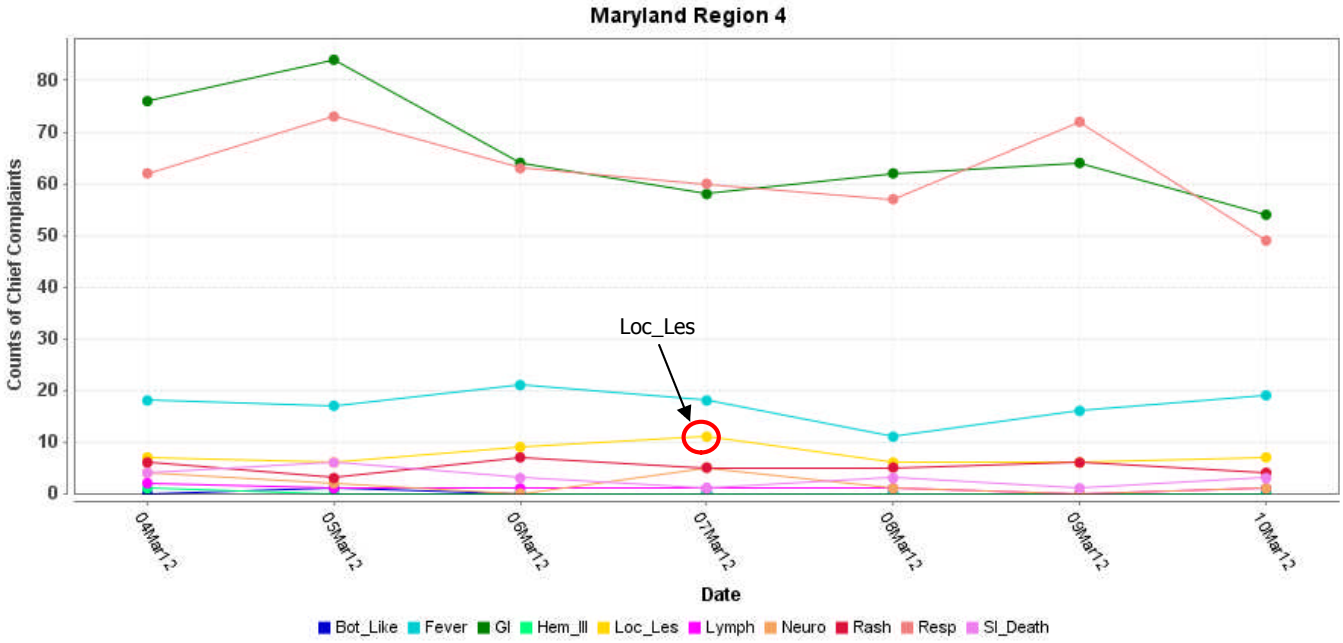
MARYLAND ESSENCE:



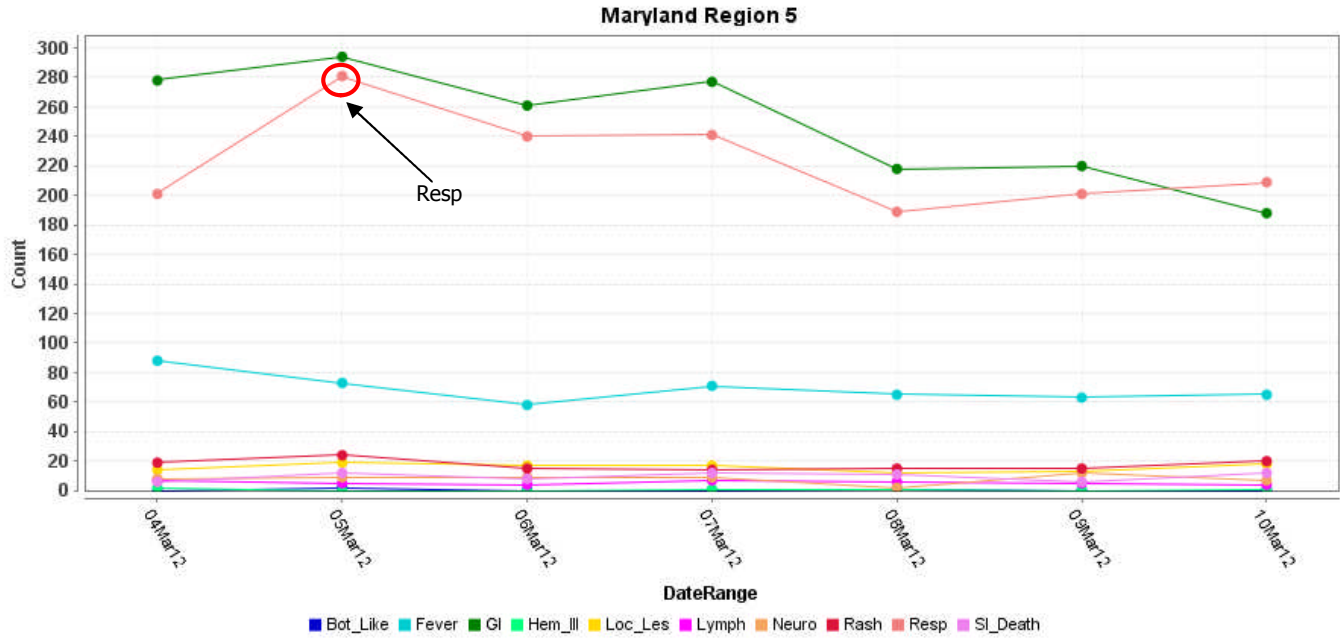
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



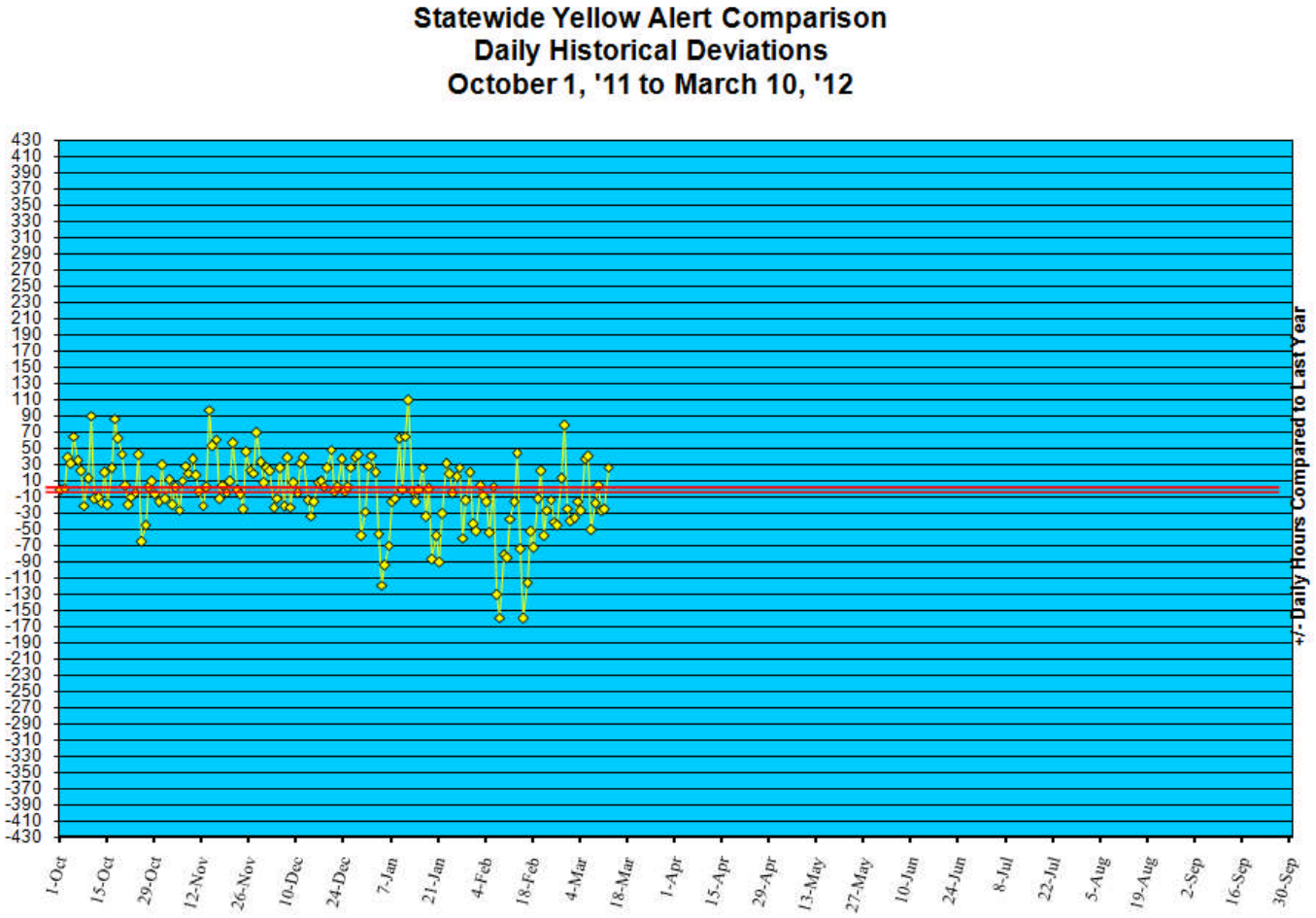
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in January 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (March 4 – March 10, 2012):	10	0
Prior week (February 26 – March 3, 2012):	14	0
Week#10, 2011 (March 5 – March 11, 2011):	6	0

19 outbreaks were reported to DHMH during MMWR Week 10 (March 4 – March 10, 2012)

16 Gastroenteritis outbreaks
8 outbreaks of GASTROENTERITIS in Nursing Homes
8 outbreaks of GASTROENTERITIS in Assisted Living Facilities

3 Respiratory illness outbreaks
1 outbreak of INFLUENZA in a Nursing Home
1 outbreak of INFLUENZA/PNEUMONIA in the Community
1 outbreak of ILI/PNEUMONIA in an Assisted Living Facility

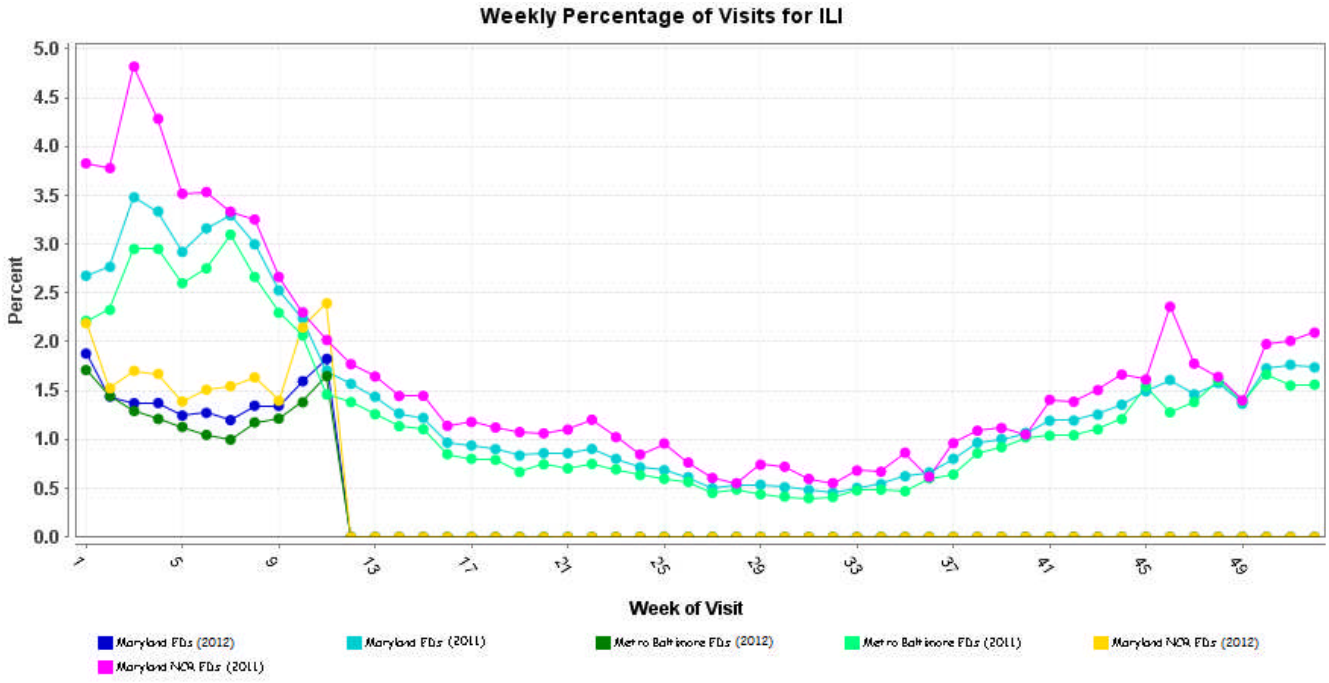
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 10 was: Widespread Activity, Minimal Intensity.

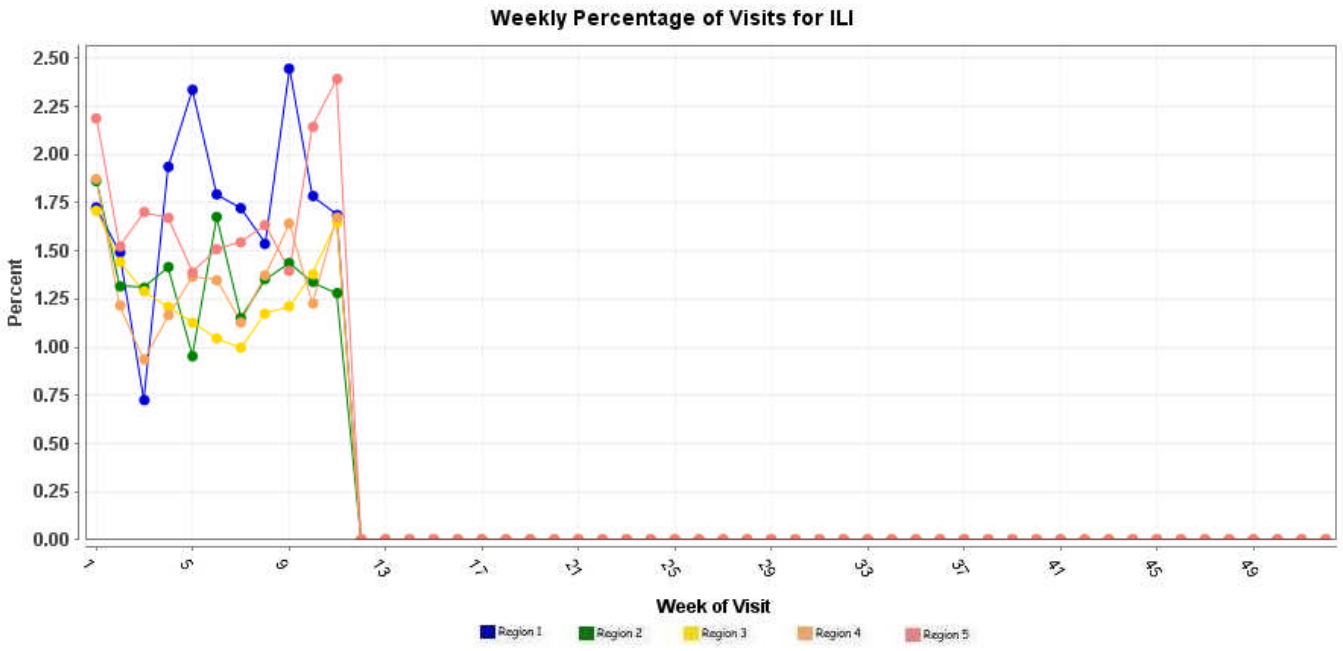
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



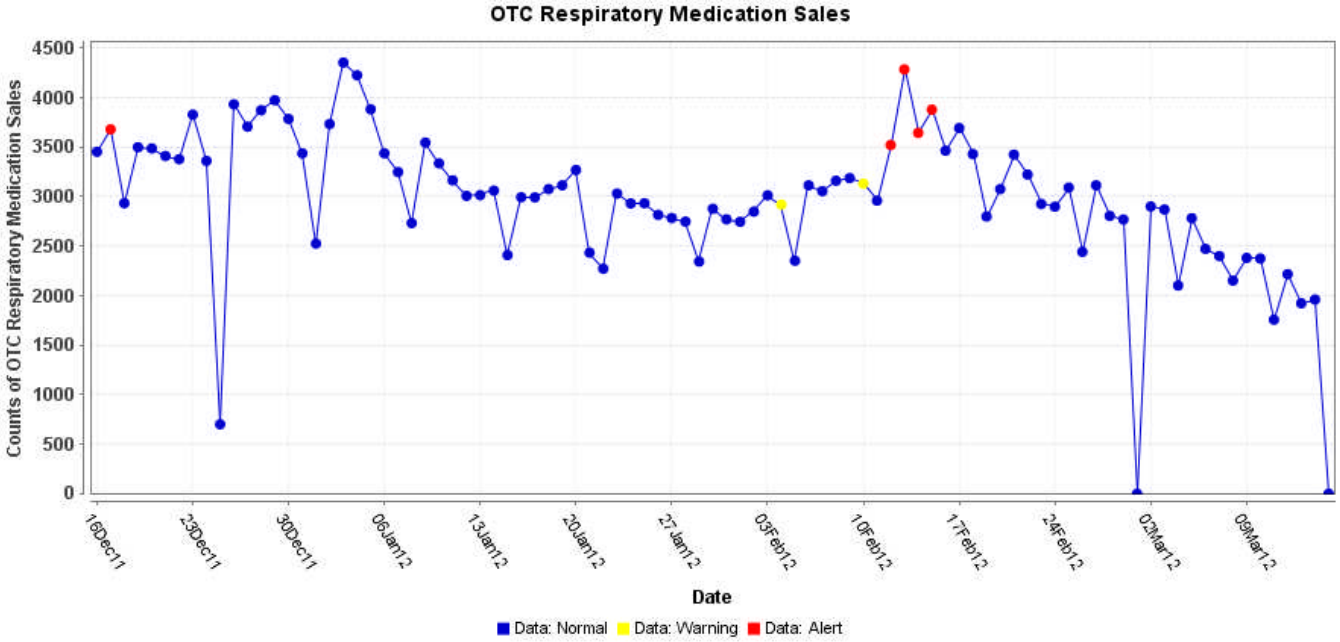
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

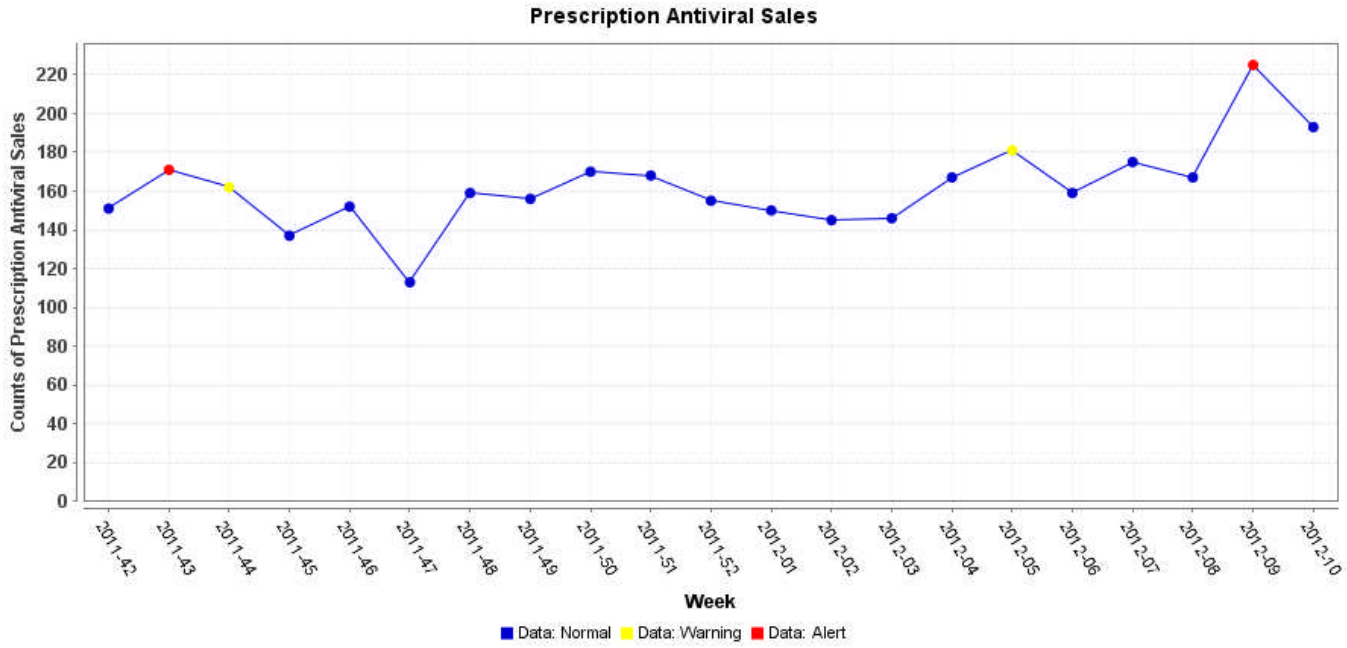
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of March 7, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 594, of which 349 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (INDONESIA): 4 March 2012, An official at the Hasan Sadikin Hospital in Bandung, West Java, confirmed on Sunday [4 Mar 2012] that a 42 year old patient having been treated for bird flu [avian A/(H5N1) influenza virus infection] symptoms since 29 Feb 2012 died in the hospital's isolation room. "The team of doctors pronounced him dead at 10:10 pm last night [3 Mar 2012]," said Primal Sudjana, the spokesman for the avian flu control [team] at the hospital. Primal said that the patient suffered multiple organ failure as his kidneys, respiratory system, and liver malfunctioned. According to Primal, the patient was in a severe condition upon his admission to the hospital. The patient had been treated previously at the Ujung Berung Hospital and later at the Emmanuel Hospital, both also in Bandung. "As his condition worsened, he was transferred to the [Hasan Sadikin] hospital," said Primal according to a report by the Antara News Agency. Early last month [February 2012], a 37 year old newspaper vendor, suspected of being infected with bird flu died after being isolated for more than 30 hours at the Hasan Sadikin Hospital. In January [2012], 2 residents of Tangerang [Banten province] who died at the Tangerang General Hospital (RSUD) were also suspected of being infected with bird flu.

AVIAN INFLUENZA, HUMAN (BANGLADESH): 7 March 2012, As of 7 Mar 2012 the Ministry of Health and Family Welfare, Bangladesh has confirmed 2 new cases of human infection with highly pathogenic avian influenza A(H5N1) virus in the country. These are the 5th and 6th cases reported in the country since 2008. These 2 cases, 26 year old and 18 year old males, presented with history of cough, and both have recovered. They were identified in the same live bird market surveillance site in Dhaka City as the 4th case recently reported, and were confirmed by the National Influenza Centre (NIC) of the WHO Global Influenza Surveillance and Response System (GISRS) in Bangladesh. Epidemiological investigation and follow-up is being conducted by National Rapid Response teams of the Institute of Epidemiology, Disease Control and Research (IEDCR) and the International Centre for Diarrhoeal Disease Research, Bangladesh.

AVIAN INFLUENZA, HUMAN (VIET NAM): 8 March 2012, Dr Tran Ngoc Huu, president of the Pasteur Institute in Ho Chi Minh City [HCMC], on 7 Mar 2012, confirmed that yet another case of bird flu had been reported in Viet Nam, bringing the total tally to 4 patients [2 fatal] since the beginning of this year. On 5 Mar 2012, doctors from the General Hospital in Dak Lak Province transferred a 32 year old local resident man to the Tropical Disease Hospital in HCMC. They believed he was suffering from the H5N1 bird flu virus. The Tropical Disease Hospital in the city later reported that the patient was suffering from serious pneumonia and needed to be put under a respirator, while tests conducted on him by the Pasteur Institute proved positive for the bird flu virus [avian A/(H5N1) influenza virus]. It is still a mystery as to how the man caught the infection in the 1st place. In related news, on the same day, the Department of Health in HCMC convened a meeting with leaders of district sub-divisions about implementation of disease prevention measures.

NATIONAL DISEASE REPORTS

VIBRIO FLUVIALIS (INDIANA): 6 March 2012, The St Joseph County Health Department is investigating whether a South Bend man's death is related to shrimp recently recalled from Martin's Super Markets. This may be an issue concerning food preparation, not foodborne illness, according to the St Joseph County Health Department. On 17 Feb 2012, Memorial Hospital alerted the county health department it had a patient with *Vibrio fluvialis* bacteria in his system. The health department then interviewed that man's wife to see what he may have eaten to give him that bacterium. Many vibrios including *V. fluvialis* can be found naturally in many uncooked seafood, including shrimp. The Food and Drug Administration told WSBT on Tuesday [6 Mar 2012] that if the food is cooked properly the bacterium usually doesn't make people sick. The health department found out the man had consumed Harvest of the Sea brand Quick and Fit Raw, Tail On, Peeled and Cleaned 21 to 25 count, 16-ounce frozen shrimp. The health department tested a 2nd bag of this shrimp that was in that man's freezer and determined it also carried the bacterium. Dr Thomas Felger, the county health officer, said that bag of shrimp came from the Martin's Supermarket on Ireland Road. He also said the man who died was battling another type of illness that weakened his immune system and made him more susceptible to the bacterium. Felger said he doesn't know of any other cases related to bacterium found in the frozen shrimp. He called this a "rare and isolated incident" and added that cooking seafood to the right temperature will almost always eliminate any contamination that could make you sick. A spokesman from Harvest of the Sea told us they sell the shrimp only to Martin's stores. No other stores in the country would carry that brand of shrimp, said Steven Fink, President of Lexicon Communications Corp, speaking on behalf of Harvest of the Sea. "We don't know if there was any correlation at all between the illness/death and the product. If there is any correlation at all, obviously we will take whatever steps necessary. But no one, including our scientists, has presented any evidence to connect those dots," Fink said. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI EHEC (USA): 8 March 2012, A total of 25 individuals infected with the outbreak strain of *Escherichia coli* O26 have been reported from 8 states. The 11 new patients have been reported from Alabama, Michigan, and Ohio. Of the 24 patients with available information, 21 (87 per cent) reported eating sprouts at Jimmy John's restaurants in the 7 days preceding illness. The number of patients identified in each state is as follows: Alabama (1), Iowa (5), Missouri (3), Kansas (2), Michigan (9), Arkansas (1), Ohio (3), and Wisconsin (1). Among these 24, illness onset dates ranged from 25 Dec 2011 to February 15 Feb 2012. Their ages range from 9 years to 53 years old [median 26 years]. 88 per cent of them are female. Six of the 24 (25 per cent) were hospitalized. None has developed hemolytic uremic syndrome [HUS], and no deaths have been reported. Illnesses that occurred after 19 Feb 2012 may not have been reported yet due to the time it takes between when a person becomes ill and when the illness is reported. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

BOTULISM (PARANA): 5 March 2012, The Secretariat of Health (SESA) of the State of Parana confiscated all lots of a manufactured sausage distributed in the Alto Piquiri area, in the north west of the state, due to the suspicion of the presence of the bacterium that causes botulism. In total, 2 people have died, 2 are symptomatic, and 10 others are suspected cases of the disease. According to Health Region XII, which covers the region of Umuarama, about 400 kg [about 900 lb] of [the sausages] have been withdrawn from the trade in Alto Piquiri and nearby areas. "We are visiting house to house to talk to people and get the product to be destroyed," said the director of regional health, Arecidio Cassiano. In one of the confirmed cases of the disease, a man remained 20 days in the hospital, 19 of them in the intensive care unit (ICU). "Another victim ate the uncooked sausage and died, while his wife and son fried it and didn't become ill," said Cassiano, "which reinforces the suspicion that the food was contaminated." Many people, without knowing, cooked or fried sausage, thereby killing the bacteria [actually, inactivating the toxin - Mod.LL] before eating the food." The company which manufactures the sausage has already halted the production of the product. "We are prepared to compensate any individual who suffered any prejudice, until the analysis of the product are complete", confirmed the lawyer in a television interview. The recommendation of Health Region XII is that those who still have in their homes Piquiri Salami in nylon wrapping, manufactured by the meat and cold cut industry and commerce Richter Ltda, do not consume and return the sausages to the place where they were purchased. On the morning of 23 Feb 2012, the Regional Health Bureau had confirmed the contamination of sausages by the bacteria, but later the SESA denied it by saying that the contaminations is suspected and that the investigation is ongoing. (Botulism is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX (PERU): 7 March 2012, The regional councillor of the Andean province of Otuzco [La Libertad region], Rafael Mayer Haro, reported 13 cases of cutaneous anthrax in the region, who are being treated in the clinic/health post in the locality of Sinsicap. The cases presented since the weekend [of 3-4 March 2012], but just yesterday [6 Mar 2012] the presence of the cutaneous infection was confirmed and is currently being treated by local health specialists. Mayer Haro reported that no known vaccination campaigns of the cattle in Sinsicap have taken place so this is probably one of the causes of the infection. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI EHEC (ENGLAND): 9 March 2012, 10 more cases of possible *Escherichia coli* O157 infection are being investigated following the closure of a primary school. They are in addition to 3 confirmed cases of *E. coli* which triggered the closure yesterday of Friarswood Primary School, in Newcastle-under-Lyme. 4 of the new cases among children are being treated as probable, with the other 6 still classed as suspected. Now all children and staff at the 153-pupil school are being tested for the bacterium over the next 24 hours. The school is expected to be closed for at least 3 days with deep cleans of classrooms, toilets, desks, and chairs carried out to stop the bug spreading . (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable